

Research Projects on Climate Change of Relevance to California

**April 11, 2008 Grant Solicitation Public Workshop**

Questions and Answers

- Q. Can we combine two research topics in a single proposal?
- A. No. Each proposal has to be on a separate topic.
- Q. What is the desired outcome of the research beyond a final project report? Is PIER interested in a published paper, a roadmap to make the emissions savings a reality, and/or an interactive website?
- A. By Legislation PIER is mandated to advance science and technology. This is usually measured by scientific or technical publications in peer-reviewed journals. However, given the length of time required to publish a paper, PIER will not ask for a publication during the duration of the grant. Therefore, our main goal is to obtain a PIER report with the needed new scientific/technical information. Creating websites with PIER funds may be problematic due to State requirements regarding format, content, and levels of review.
- Q. Section 6, page 3 of the solicitation states: "Applicants may submit multiple proposals; however, they may submit only one proposal to each of the 6 research topic areas." Is it allowable for a single subcontractor (not the Principal Investigator (PI) on either proposal) to be on more than one proposal for Research Topic 2: N<sub>2</sub>O Emissions from the Application of Fertilizers in Agricultural Soils?
- A. Yes. For example, under a single research topic area, an entity or principal investigator can submit a proposal and can also participate as subcontractor in other proposals. An entity or investigator can also be a subcontractor on two or more proposals under the same research topic area.
- Q. We are interested in finding out if it is possible to apply for 2 or 3 research topics.
- A. Yes. An Applicant can send applications for one or more research topics. Please note, however, that an Applicant cannot submit more than one proposal for the same research topic. See the following paragraph from Section 6, page 3 of the solicitation:

"Applicants may submit multiple proposals; however, they may submit only

one proposal to each of the 6 research topic areas. Each proposal must be submitted separately, adhering to all the requirements contained in this application package. The Energy Commission will consider different departments and/or divisions of a single institution as separate and distinct Applicants."

- Q. Can a person who is the PI in one proposal be a team member in another proposal?
- A. Yes, she/he can be a team member in another proposal but she/he cannot be the PI in both proposals. If the proposals are for two different Research Topic Areas, then she/he can be the PI in both proposals.
- Q. What is the page limit for the application package?
- A. 20 pages, including 2 page Executive Summary. This does not include resumes, scope of work (Exhibit C), and budget (Exhibit D). .
- Q. Matching funds are not required, but are they expected?
- A. Matching funds are not required but would be an enhancing feature for the proposal.
- Q. Identifying and obtaining matching funds is listed as one of the Administrative Tasks in Exhibit C, Work Statement Template. Does this mean that every applicant is required to at least look for matching funds, whether or not they are obtained?
- A. No. The Work Statement Template contains boilerplate language regarding matching funds. If a proposal does not have matching funds, the language will not apply.
- Q. Do in-kind contributions count as matching funds? Would documenting their existence enhance a proposal?
- A. Yes and yes. Match funds are not required but will be a plus. Applicant and the entities providing in-kind contributions must be able to track their contributions to ensure that the contributions are real.
- Q. On matching funds: Hypothetically speaking, when the proposal was being written it was pending but during the proposal review it becomes reality; is there a process for notifying this change in funding situation?
- A. The reviewers will most likely give little weight to potential matching funds and providing additional information after the due date for the proposal is not allowed. However, the reviewers may interview Applicants for clarification

purpose and they may ask about the status of potential matching funds. Please refer to the Section 13, page 6 of the solicitation.

- Q. For UC Applicants, will the terms and conditions in agreement 500-02-004 apply rather than those referenced in the call?
- A. No, the terms and conditions in PIER contract 500-02-004 with the University of California (UC) will not apply to any grants with UC that might occur under this solicitation. The Commission Grants Office has terms and conditions specific to UC and they differ from the terms used in contracts. A copy of the UC terms can be requested from the Grants Office by contacting Ms. Crystal Presley-Willis (Cpresley@energy.state.ca.us).
- Q. Will the information presented at the workshop be accessible later on?
- A. Yes. The recording of this workshop is available on a CD upon request. Please send your request to Mr. Guido Franco (gfranco@energy.state.ca.us) and he will send you a copy of the WebEx recording. For viewing the file, please download the WebEx player program at <http://support.webex.com/support/downloads.html>

Please beware that if there are any discrepancies between answers at the workshop and the answers on this Q&A list, the current answers in this Q&A list take precedence over our preliminary answers.

- Q. Can I get the list of the people who have attended this workshop?
- A. Yes. For a list of attendees, please email your request to Mr. Guido Franco (gfranco@energy.state.ca.us) and he will send you the list. Please note that for WebEx participants, we have only the participant names, whereas we can give you the email addresses for the in-person attendees who signed the attendance sheet. Please note that signing the attendance sheet was voluntary and not mandatory. Thus, the list does not necessarily reflect all attendees at the workshop.
- Q. When can a successful Applicant expect to start working?
- A. It is anticipated that awards will be approved by the Energy Commission in October or November 2008 and that work will begin in November or early December 2008.
- Q. On Research Topic 1, what is the definition of a “sector”?
- A. A sector can be a specific industrial sector such as the electricity generating sector or a commercial activity in the commercial sector or any other sector of the economy or a particular locality.

Q. What is considered a "project"? For example, Research Topic 1 says maximum requested funding for each proposed project is \$300,000, but the project description says that we should identify two or more in-depth studies. So can we request \$600,000 (for two studies) or does the project contain two studies (and therefore a maximum of \$300,000)?

A. We are looking to select two (or more) proposals under Research Topic 1, each for \$300,000 maximum. Each proposal will be viewed as a single project, for one case study, and thus each proposal can be awarded up to \$300,000. However, in theory we could receive, for example, six proposals asking \$100,000 for each one of them. In this theoretical case, we could fund 6 in-depth studies given the fact that the total amount available for this research topic is \$600,000.

Q. Other PIER solicitations are typically focused on either electricity or gas, depending on funding source. Does research of GHG emissions from burning of natural gas other than for electricity generation qualify?

A. Yes. We understand that this question refers to research topic 1. The idea is to study options to reduce GHG emissions that *any* entity (e.g., electrical or natural gas utilities) may consider implementing to offset their emissions, if this activity is allowed in future regulatory regimes.

Q. For local and regional adaptation studies, what does the subject entail?

A. We are looking for adaptation on local and regional levels vis-à-vis agriculture, economy, sea-level rise, and impacts on local community. These, of course, are just a few possible foci of investigation. This is a very broad, wide-open research area.

Q. For local and regional adaptation studies, is economic analysis of coastal erosion an acceptable topic?

A. Yes.

Q. On adaptation studies, are studies on energy consumption in buildings acceptable? Can energy infrastructure be included?

A. Yes and yes. And not just energy infrastructure but any kind of infrastructure can be included.

Q. On adaptation studies, is the emphasis on description of potential impacts?

- A. No, we are not interested in the description of potential impacts. We are interested in adaptation (i.e., what local/regional authorities should do to adapt to climatic changes).
- Q. On Research Topic 3, what do you mean by “participating in local and regional agencies,” and why is it necessary?
- A. This is a research that should inform policy formulation on adaptation. Participation by local and/or regional agencies “is highly recommended” but not required to assure policy relevance of these studies and their applicability in real-life situations.
- Q. My reading of the “Research Topic: Adaptation, local and regional scales,” appears to omit sea level rise and its associated impacts as a possible area of inquiry. Would this be a legitimate subject of inquiry under this Topic?
- A. Adaptation studies dealing with sea level rise is a proper topic under this Research Topic.
- Q. For Research Topic 4, is it favorable to conduct a manipulative experiment, or are you only interested in monitoring? Is a manipulative study considered as core or tangential to the research topic?
- A. A manipulative study would probably be tangential to the topic. The goal here is to produce longitudinal floral and fauna data, not to create models or conduct manipulative experiments. Modeling will follow in later studies, using the data collected from this solicitation grant.
- Q. For Research Topic 4 (Ecological studies), are you interested in studies and data from specific regions of CA to help contribute to the modeling or are you only interested in field studies that are CA-wide?
- A. The studies must be conducted in California. There are no requirements regarding study sites as long as they are in California.
- Q. Regarding "Research Topic 4" (Collection of Ecological Data for Climate Change Studies), I read the grant solicitation to be focused on the collection of data for use in modeling and NOT modeling studies per say. Is this correct?
- A. Yes, data collection is the main goal.
- Q. On Research Topic 4: do you expect studies to look at impacts on community and animals? What is the baseline assumption here?

A. We expect data gathering from areas that already have existing data (e.g., we are interested in re-sampling studies) that were collected several decades ago. The purpose is, in the future, to test ecological models.

Q. Is this solicitation targeted specifically for terrestrial ecosystems or are aquatic systems also considered?

A. The solicitation is open for both terrestrial and aquatic ecosystems.

Q. For Research Topic 5: You mentioned the “potential for renewables.” I was not clear if Topic 5 includes supply side options for reducing GHG emissions. Can we get some clarification on if supply side options are included?

A. Research topic 5 includes an evaluation of all supply and demand options and other options (please consult Pacala and Socolow’s paper referenced in Exhibit A5-2, page 25 of the solicitation).

Q. On Research Topic 5, you mention “using the existing PIER studies as a starting point”: What do you have in mind for this?

A. PIER has been funding studies in this area but our studies have not covered everything. Applicants can cover unexplored areas such as carbon sequestration in the ocean.

Q. On Research Topic 5, you mention assessment on long-term efficiency on residential sector. Why not include other sectors as well?

A. The study on the potential of energy efficiency in the residential sector is posted as a PIER report:  
(<http://www.energy.ca.gov/publications/displayOneReport.php?pubNum=CEC-500-2007-002>). This was just an example of the studies that could be used to inform the research for topic 5. Other sectors must be included.

Q. Re Research Topic 5, where can we get more information on energy pathways?

A. You can find more information from Dr. Alan Lamont et al.’s presentation at the last year’s PIER Climate Change Conference. Please go to:  
[http://www.climatechange.ca.gov/events/2007\\_conference/presentations/2007-09-13/2007-09-13\\_LAMONT\\_ALAN.PDF](http://www.climatechange.ca.gov/events/2007_conference/presentations/2007-09-13/2007-09-13_LAMONT_ALAN.PDF)

Q. On Research Topic 5, please expand on how you would like us to approach on the 2050 options. Is it a requirement to use a specific model?

- A. We suggested to follow Pacala and Socolow's work in configuring your study and enhance their work. We expect proposals will do general analysis on each option but we are not expecting/requiring Applicants to use any specific model. In fact, this should be a bottom-up study that should be relatively easy to follow and understand.
- Q. As part of our research, we propose to develop models of many different products and systems to evaluate operating costs and emissions savings. These models could be integrated into a website to allow the public to estimate savings by inputting their location and usage characteristics. It would be a substantial undertaking beyond the core research. How valuable will this be to PIER?
- A. Creating websites with PIER funds may be problematic due to State requirements regarding format, content, and levels of review. It is also not clear how a website would advance science and technology.
- Q. Should we include evaluation of other emissions as well as GHG emissions in our research?
- A. The focus must be in GHG emissions but estimating other emissions would be a plus.
- Q. Regarding Research Topic 5, could you provide us with some helpful technical sources from past PIER funded research? We want to consult as many sources as possible.
- A. Gladly. There are many informative websites available:
- WESTCARB: <http://www.westcarb.org/>
  - Several useful PIER reports are available at:  
<http://www.energy.ca.gov/publications/searchReports.php?pier1=climate%20change>
- Such as:
- Government Actions and Innovation in Clean Energy Technologies: The Cases of Photovoltaic Cells, Solar Thermal Electric Power, and Solar Water Heating
  - California in Context: Long-Term Scenarios of Energy Efficiency and Renewable Energy
  - Clean Energy and Climate Change Response in California: The Intersection of Policy and RD&D
  - Assessment of Long-Term Electric Energy Efficiency Potential in California's Residential Sector
  - Carbon Supply from Changes in Management of Forest and Rangelands in Shasta County, California
  - Emission Reduction Opportunities for Non-CO2 Greenhouse Gases in California

- Optimization of Product Life Cycles to Reduce Greenhouse Gas Emissions in California
- Market Failures, Consumer Preferences, and Transaction Costs In Energy Efficiency Purchase Decisions
- Check other PIER reports in other PIER program areas (e.g., PIER Renewables)

Q. On topic 6, what aspect of the topic is more relevant: snowmelt or underground recharge?

A. We are looking for data. Therefore, data collection on snowmelt and underground recharge are both relevant.

Q. On topic 6, will installation of monitoring stations be OK?

A. Yes.